

**ABSTRACT OF THE DISCLOSURE**

A backup planning device within a fabrication system. The backup planning device schedules backup operations between separately located fabrication facilities by introducing a  
5 virtual tool. The capacity of the virtual tool is combined into first capacity information of a tool group to generate second capacity information thereof accordingly. The first capacity information comprises capacity information of effective tools in the respective tool group, while the second capacity  
10 information comprises capacity information of effective tools plus the virtual tool thereof. A first manufacturing plan for the tool group is determined according to a master production schedule, a WIP profile, and the second capacity information thereof. A second manufacturing plan is determined according  
15 to the workload allocation of the virtual tool in the first manufacturing plan.